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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/834,998	04/13/2001	Roberto A. Gaxiola	0399.2004-002	4319

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HAMILTON, BROOK, SMITH & REYNOLDS, P.C.
530 VIRGINIA ROAD
P.O. BOX 9133
CONCORD, MA 01742-9133

EXAMINER

COLLINS, CYNTHIA E

ART UNIT	PAPER NUMBER
2638	

DATE MAILED: 03/21/2003

13

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/834,998	GAXIOLA ET AL.	
	Examiner	Art Unit	
	Cynthia Collins	1638	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 July 2002* .

2a)☐ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-76* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-76* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-7, 10-54, 56-57 and 74-76, drawn to a transgenic plant transformed with an exogenous nucleic acid encoding an AVP1 homologue from tobacco, a construct, plant cells, and a method of making a transgenic plant, classified in class 435, subclass 419, for example.

II. Claims 1-7, 10-54, 56-57 and 74-76, drawn to a transgenic plant transformed with an exogenous nucleic acid encoding an AVP1 homologue from bacteria, a construct, plant cells, and a method of making a transgenic plant, classified in class 800, subclass 288, for example.

III. Claims 1-7, 10-54, 56-57 and 74-76, drawn to a transgenic plant transformed with an exogenous nucleic acid encoding an AVP1 homologue from tomato, a construct, plant cells, and a method of making a transgenic plant, classified in class 435, subclass 468, for example.

IV. Claims 1-7, 10-54, 56-57 and 74-76, drawn to a transgenic plant transformed with an exogenous nucleic acid encoding an AVP1 homologue from corn, a construct, plant cells, and a method of making a transgenic plant, classified in class 435, subclass 320.1, for example.

V. Claims 8-9, drawn to a transgenic plant which grows in a concentration of salt that inhibits growth of a corresponding nontransgenic plant, classified in class 800, subclass 295, for example.

VI. Claim 55, drawn to a method of bioremediating soil, classified in class 800, subclass 298, for example.

VII. Claims 58-64, drawn to a method of removing cations from a medium, classified in class 435, subclass 410, for example.

VIII. Claims 65-73, drawn to a transgenic plant transformed with an exogenous nucleic acid which alters the expression of a vacuolar pyrophosphatase and an Na+/H+ antiporter, and a method of making a transgenic plant, classified in class 800, subclass 278, for example.

The inventions are distinct, each from the other because of the following reasons:

Inventions I-V and VIII are unrelated to each other. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different modes of operation. The transgenic plants of Inventions I-V and VIII are unrelated to each other because they comprise structurally different transgenes. The transgenic plant of Invention I is transformed with an exogenous nucleic acid encoding an AVP1 homologue from tobacco, the transgenic plant of Invention II is transformed with an exogenous nucleic acid encoding an AVP1 homologue from bacteria, the transgenic plant of Invention III is transformed with an exogenous nucleic acid encoding an AVP1 homologue from tomato, the transgenic plant of Invention IV is transformed with an exogenous nucleic acid encoding an AVP1 homologue from corn, the transgenic plant of Invention IV does not require the presence of any specific transgene, and the transgenic plant of Invention VIII is

transformed with an exogenous nucleic acid which alters the expression of both a vacuolar pyrophosphatase and an Na+/H+ antiporter.

Inventions V and VI-VII are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different modes of operation. The methods of Inventions VI-VII require the use of transgenic plants in which the expression of vacuolar pyrophosphatase in the plant is altered. The transgenic plant of Invention V does not exhibit this characteristic.

Inventions I-IV and VI-VII are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the transgenic plant can be used in a materially different process of using that product, such as a method of producing a recombinant protein or a breeding method.

Applicants are reminded that nucleotide sequences encoding different amino acid sequences are structurally distinct chemical compounds and are unrelated to one another. These sequences are thus deemed to normally constitute **independent and distinct** inventions within the meaning of 35 U.S.C. 121. Absent evidence to the contrary, each such nucleotide sequence is presumed to represent an independent and distinct invention, subject to a restriction requirement pursuant to 35 U.S.C. 121 and 37 CFR 1.141 et seq. This requirement is not to be construed as a requirement for an election of species, since each nucleotide and amino acid sequence is not a

member of a single genus of invention, but constitutes an independent and patentably distinct invention.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, their recognized divergent subject matter, and the requirement for different areas of search, restriction for examination purposes as indicated is proper.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Remarks

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cynthia Collins whose telephone number is (703) 605-1210. The examiner can normally be reached on Monday-Friday 8:45 AM -5:15 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amy Nelson can be reached on (703) 306-3218. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-4242 for regular communications and (703) 308-4242 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.

CC
March 13, 2003

DAVID T. FOX
PRIMARY EXAMINER
GROUP ~~180~~ 1638